

## Abstract

1 The object of this invention is to provide a method by which to  
form molecule recognizing films on sensor electrodes efficiently,  
5 within a short period, uniformly and in a high quality state. Another  
object of this invention is to provide a method by which to accurately  
introduce a vast number of biological samples for evaluation to the  
plural minute sensor electrode dots within a short period and  
efficiently.

10 In order to form organic thin films on electrodes, a solution of  
a material for the organic thin film is accurately printed via an  
ink-jet onto the surface of microelectrodes as required, thereby  
producing a high density array of microelectrodes. Further, a solution  
of a sample substance or a liquid substance to be sensed is ejected  
15 into air via an ink-jet nozzle to fall to the surface of organic thin  
membranes on the microelectrodes so that the sample is evaluated.